

CLAIMS:

1-54 (Cancelled).

55. (Currently Amended) A method of signalling between first and second equipments, the method comprising the steps of:

- (a) transmitting a signal from said first equipment to said second equipment;
- (b) reflecting said signal back to said first equipment in a variable manner that varies corresponding to a first bit sequence;
- (c) receiving the signal thus reflected at said first equipment; and
- (d) comparing said signal thus reflected with said transmitted signal to thereby extract said first bit sequence.

56. (Currently Amended) The method of signalling according to claim 55, the method comprising the steps of transmitting a signal corresponding to a second bit sequence from said first equipment to said second equipment, and extracting said second bit sequence from said signal at said second equipment.

57. (Previously Presented) The method according to claim 55, further comprising checking at said first equipment said signal thus reflected.

58. (Previously Presented) The method according to claim 55, the method comprising the step of reflecting said signal back to said first equipment in phase with said signal.

59. (Previously Presented) The method according to claim 55, the method comprising the step of reflecting said signal back to said first equipment out of phase with said signal.

60. (Previously Presented) The method according to claim 55, wherein said first and second equipments are linked by a transmission line having a reflective termination at

said second equipment, the method comprising the step of varying the reflective property of said termination in a manner corresponding to said first bit sequence.

61. (Previously Presented) The method according to claim 60, further comprising the step of varying the reflective property of said termination between open-circuit and short-circuit conditions in a manner corresponding to said first bit sequence.

62. (Previously Presented) The method according to claim 56, wherein said first and second equipments are linked by a transmission line, the step of transmitting a signal corresponding to a second bit sequence from said first equipment to said second equipment comprising the application of successive oppositely-directed voltage excursions to said transmission line.

63. (Previously Presented) The method according to claim 62, further comprising the step of varying the phase of successive oppositely-directed voltage excursions in dependence on said second bit sequence.

64. (Previously Presented) The method according to claim 62, wherein all of the excursions are to substantially the same extent.

65. (Previously Presented) The method according to claim 63, wherein all of the excursions are to substantially the same extent.

66. (Previously Presented) The method according to claim 62, wherein said oppositely-directed voltage excursions are of opposite polarity.

67. (Previously Presented) The method according to claim 63, wherein said oppositely-directed voltage excursions are of opposite polarity.

68. (Previously Presented) The method according to claim 64, wherein said oppositely-directed voltage excursions are of opposite polarity.

69. (Previously Presented) The method according to claim 66, wherein said oppositely-directed voltage excursions are symmetrical about nominally zero volts.

70. (Previously Presented) The method according to claim 62, the method comprising the step of applying a further voltage component in association with said oppositely-directed voltage excursions.

71. (Previously Presented) The method according to claim 63, the method comprising the step of applying a further voltage component in association with said oppositely-directed voltage excursions.

72. (Previously Presented) The method according to claim 64, the method comprising the step of applying a further voltage component in association with said oppositely-directed voltage excursions.

73. (Previously Presented) The method according to claim 66, the method comprising the step of applying a further voltage component in association with said oppositely-directed voltage excursions.

74. (Previously Presented) The method according to claim 69, the method comprising the step of applying a further voltage component in association with said oppositely-directed voltage excursions.

75. (Previously Presented) The method according to claim 62, the method comprising the step of applying a further voltage component in association with a plurality of said oppositely-directed voltage excursions.

76. (Previously Presented) The method according to claim 63, the method comprising the step of applying a further voltage component in association with a plurality of said oppositely-directed voltage excursions.

77. (Previously Presented) The method according to claim 64, the method comprising the step of applying a further voltage component in association with a plurality of said oppositely-directed voltage excursions.

78. (Previously Presented) The method according to claim 66, the method comprising the step of applying a further voltage component in association with a plurality of said oppositely-directed voltage excursions.

79. (Previously Presented) The method according to claim 69, the method comprising the step of applying a further voltage component in association with a plurality of said oppositely-directed voltage excursions.

80. (Previously Presented) The method according to claim 70, wherein said further voltage component has a magnitude medial of said voltage excursions.

81. (Previously Presented) The method according to claim 75, wherein said further voltage component has a magnitude medial of said voltage excursions.

82. (Previously Presented) The method according to claim 80, wherein said further voltage component is a constant substantially zero volts.

83. (Currently Amended) The method according to claim 70, wherein a step of checking at said first equipment said signal thus reflected includes checking the timing of said voltage excursions.

84. (Currently Amended) The method according to claim 75, wherein a step of checking at said first equipment said signal thus reflected includes checking the timing of said voltage excursions.

85. (Currently Amended) The method according to claim 80, wherein a step of checking at said first equipment said signal thus reflected includes checking the timing of said voltage excursions.

86. (Currently Amended) The method according to claim 82, wherein a step of checking at said first equipment said signal thus reflected includes checking the timing of said voltage excursions.

87. (Previously Presented) The method according to claim 70, wherein a step of checking at said first equipment said signal thus reflected includes checking the interval before or after a first or second voltage excursion.

88. (Previously Presented) The method according to claim 75, wherein a step of checking at said first equipment said signal thus reflected includes checking the interval before or after a first or second voltage excursion.

89. (Previously Presented) The method according to claim 80, wherein a step of checking at said first equipment said signal thus reflected includes checking the interval before or after a first or second voltage excursion.

90. (Previously Presented) The method according to claim 82, wherein a step of checking at said first equipment said signal thus reflected includes checking the interval before or after a first or second voltage excursion.

91. (Previously Presented) The method according to claim 83, wherein a step of checking at said first equipment said signal thus reflected includes checking the interval before or after a first or second voltage excursion.

92. (Previously Presented) The method according to claim 70, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the nominal mid-point zero-crossing of said voltage excursions.

93. (Previously Presented) The method according to claim 75, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the nominal mid-point zero-crossing of said voltage excursions.

94. (Previously Presented) The method according to claim 80, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the nominal mid-point zero-crossing of said voltage excursions.

95. (Previously Presented) The method according to claim 82, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the nominal mid-point zero-crossing of said voltage excursions.

96. (Previously Presented) The method according to claim 83, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the nominal mid-point zero-crossing of said voltage excursions.

97. (Previously Presented) The method according to claim 87, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the nominal mid-point zero-crossing of said voltage excursions.

98. (Previously Presented) The method according to claim 70, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

99. (Previously Presented) The method according to claim 75, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

100. (Previously Presented) The method according to claim 80, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

101. (Previously Presented) The method according to claim 82, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

102. (Previously Presented) The method according to claim 83, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

103. (Previously Presented) The method according to claim 87, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

104. (Previously Presented) The method according to claim 92, wherein a step of checking at said first equipment said signal thus reflected includes the step of checking the total extents of said voltage excursions.

105. (Previously Presented) The method according to claim 62, further comprising the step of time domain reflectometry to detect transmission line faults.

106-186. (Cancelled).